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NCBC GULFPORT
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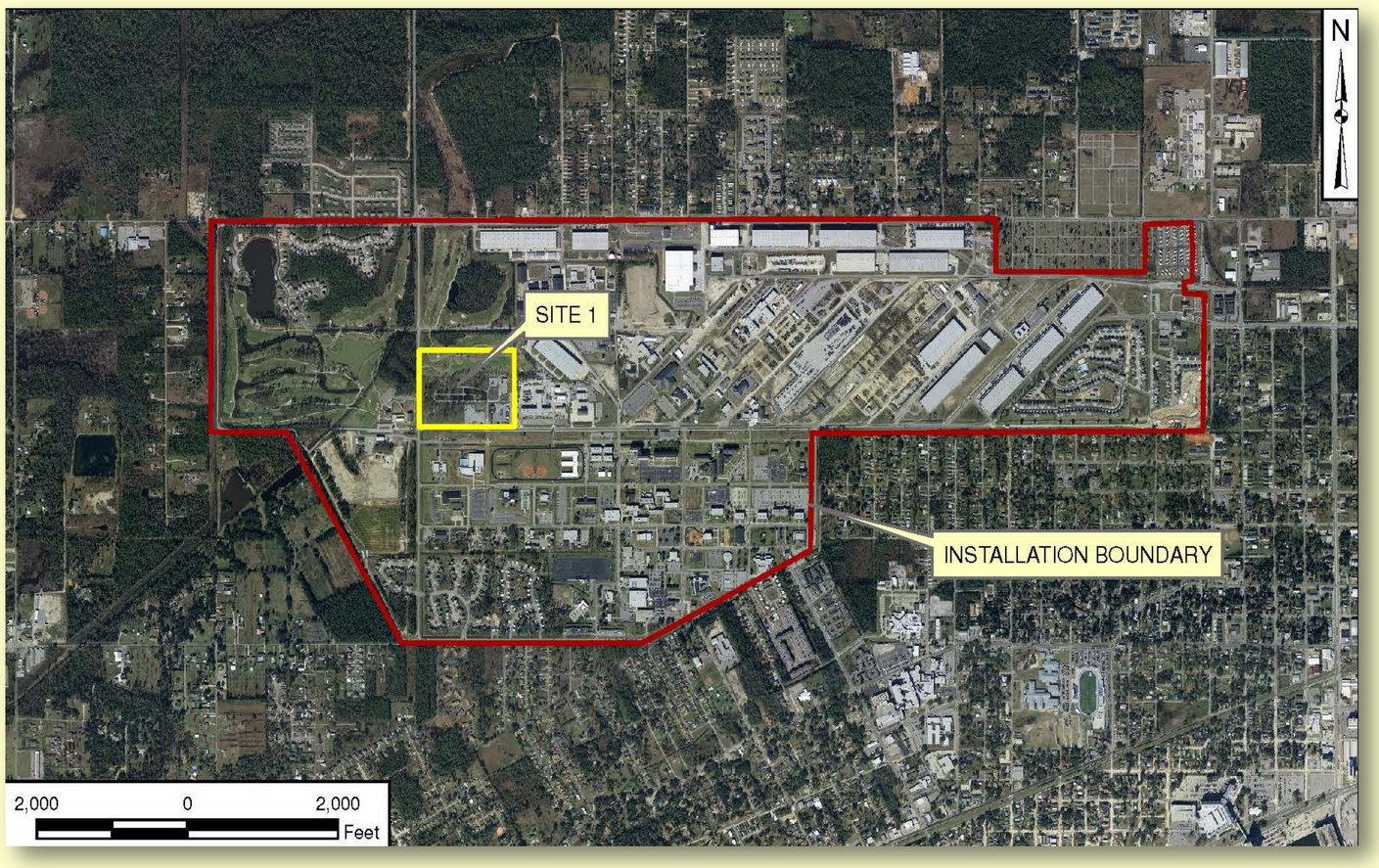
SITE 1 PROPOSED PLAN POSTERS NCBC GULFPORT MS
4/17/2014
TETRA TECH

Disaster Recovery Disposal Area- Site 1

Background and Description



Site 1 is an approximately13.5 acre former landfill located in the center of the western portion of NCBC Gulfport.

The site is a mainly grass and tree covered area with limited roadways, parking lot, and building improvements.

Site 1 Facts

- The Disaster Recovery Disposal Area operated from 1942-1948.
- This former landfill received wastes from the public work shops and the supply department.
- Wastes included used household garbage, fuel, oil, solvents, paint, and paint thinners.
- Wastes were transported in 55-gallon drums and buried in unlined trenches.
- The waste disposal area was covered with soil when disposal activities ceased in 1948. Additional fill was added over the years to construct parking lots and roads.
- The site has been most recently used as a mock disaster recovery training village and a military training area.

The original study boundary was based on historical information and provided a starting point for the investigation.

Site 1 has most recently been used as a military training area.

April 2014

Disaster Recovery Disposal Area- Site 1
Investigations and Early Actions

Site 1 Investigations and Early Actions

- The site was identified during the *Initial Assessment Study* in 1985. Additional studies were conducted between 1987 and 1999.
- *Site 1 Remedial Investigation (RI)* field activities were completed in 2008.
- Polychlorinated biphenyls (PCBs) found in the bank of an onsite drainage ditch during the RI investigation were later excavated and disposed of during a construction project completed as part of Hurricane Katrina reconstruction efforts.
- In 2012 a *Landfill Cover Assessment* was completed to evaluate the thickness and properties of the existing cover.

RI Field Activities

The RI field work included:

- Geophysical, soil gas, and landfill gas surveys
- Sampling of sediment, surface water, soil, and groundwater.
- Assessment of the soil cover depth.
- Evaluation of site drainage.

Site 1 Drainage

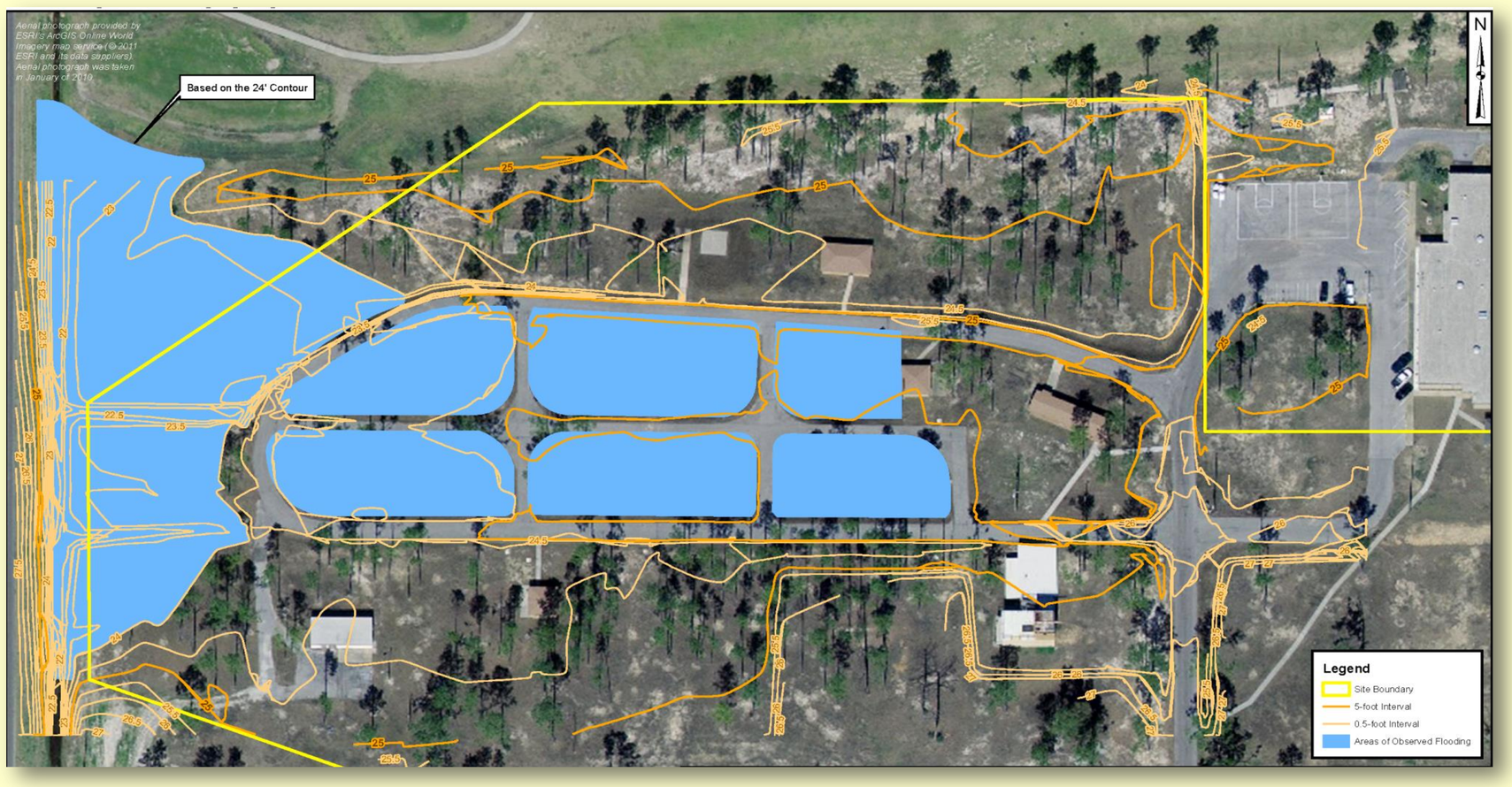
Southwest corner of site showing partially blocked culvert.

RI Results

- **Dieldrin**, a pesticide, was found in surface soil at concentrations that could pose unacceptable health risks for future residents and construction workers.
- **Tetrachloroethylene (PCE)**, and metals (iron, thallium, and manganese) were found in groundwater at levels that might pose a risk for human health or the environment.
- No contaminants of concern were found in the surface water, sediment, or subsurface soil.
- The depth of the soil cover is adequate across the site.
- The drainage systems needs to be restored.

Flooding in Central Area of Site 1

Rainwater Ponding



Topography of Site 1 showing areas of observed flooding.

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Disaster Recovery Disposal Area– Site 1
Preferred Remedy

The Feasibility Study and Proposed Plan

A **Feasibility Study** was completed to evaluate three possible cleanup alternatives for Site 1:

1. The **No Action** alternative is always evaluated as a baseline for comparing alternatives.
2. The **Focused Action** alternative includes maintenance of the existing 2-foot minimum clean soil cover, limited soil excavation to remove dieldrin-contaminated soil, cleaning out and repairing culverts and ditches to restore optimal drainage conditions, and establishment and maintenance of land use controls, and long-term sampling of groundwater to detect if contaminants are moving from the site.
3. The **Comprehensive Action** alternative includes all of the actions in the Focused Action plus a three-layered landfill cover consisting of: (1) topsoil, (2) compacted soil, and a landfill gas-venting system.

The Navy's **Proposed Plan** recommends Alternative 2**, *Focused Action***, as the Preferred Remedy for Site 1. The Focused Action alternative has been shown to be protective of human health and the environment without the additional costs of implementing the Comprehensive Action alternative.

Limited Excavation

- Dieldrin-containing soil would be excavated and transported to an approved landfill.
- Clean material would be used to fill the excavation and maintain soil cover.

Restore Drainage System

- Restore original drainage system by repairing drainage swales and culverts to minimize flooding.
- Materials from swales and culverts would be sampled and managed as indicated by the sample results.

Maintain Current Soil Cover

- Maintain the existing 2-foot clean soil cover.
- The soil cover prevents contact with landfill contents and prevents transportation of landfill contents by erosion.

Land Use Controls & Long Term Monitoring

- Site controls would include restricting development and groundwater use.
- Periodic inspections and annual monitoring would be required to check the integrity of the soil cover.
- Periodic monitoring would ensure that contaminants were not leaching into the groundwater.

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